Dear Residents;

The Genesee County Drain Commissioner's Office – Division of Water and Waste Services (GCDC-WWS) continues to provide exceptional services to our residents while proactively looking forward to safeguard the public health of our region.

We also proudly announce the **8th consecutive year of no water rate increases**, despite an unprecedented inflationary environment. By operating our own system, as opposed to purchasing water from another provider, we are able to stablize prices, while still supplying the highest quality water possible.

Construction of Phase 1 of the Southern Lake water main extension has been completed and in full operation. Phase 2 & Phase 3 are under construction and scheduled to be completed in 2024 to provide service for additional areas of Fenton Township and the City of Linden. The water main will provide residents and businesses with an option to connect to GCDC-WWS's water supply or remain on their existing well.

A 500,000 gallon elevated storage tank in Fenton Township has been designed and under construction. This elevated tank will provide consistent water system pressure and storage for Fenton Township and the City of Linden, when they come online, as part of the Southern Lake water main extension.

A back-up generator has been installed at the Water Treatment Plant (WTP) to provide a third source of power for the plant. In the event that the Water Plant should lose power, the back-up generator will provide power the WTP needs to continue supplying water to residents and businesses in Genesee County.

During 2023, we have met, or exceeded, all water quality standards set by The Michigan Department of Environment, Great Lakes, and Energy (EGLE) and the Environmental Protection Agency (EPA).

Sincerely,

Jeff Wright, Genesee County Drain Commissioner
Dan Potter, Chief Deputy Drain Commissioner
John F. O'Brien, PE, BCEE, Director, Division of Water & Waste Services
Terry Biederman, PE, Assistant Director of Water
Kevin VanSickle, Superintendent, Water Treatment Plant
Dan Lince, Superintendent, Water Distribution

Water Quality Report
2023 Consumer Confidence Report

This report contains our water quality data for 2023 required by the United States Environmental Protection Agency.

Water Source:

The Genesee County Drain Commissioner's Office - Division of Water & Waste Services (GCDC-WWS) (WSSN-2615) draws its water from Lake Huron. We distribute the water to twenty (20) communities within Genesee County. Water samples are taken daily at our Water Treatment Plant, as well as weekly, monthly, and yearly from the Water Distribution System. Michigan's Department of Environment, Great Lakes & Energy (EGLE) and Environmental Protection Agency (EPA) requires water quality testing requirements to ensure safe and reliable drinking water.

Additional Information:

To ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the number of certain contaminants in water provided by public water systems. The Food & Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

The sources for drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source waters include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources including agriculture, urban storm water runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

People with Special Health Concerns:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons including persons with cancer, who are undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA and Communicable Disease Center (CDC) establishes guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants. These are available from the Safe Drinking Water Hotline (800-426-4791) or www.epa.gov/safewater.

Cryptosporidium:

Cryptosporidium (Crypto) is a microbial parasite found in surface water throughout the U.S. The GCDC-WWS Water Treatment Plant went on line in December 2017. As part of the coming online process, GCDC-WWS conducted monthly source water (Lake Huron) monitoring for Cryptosporidium (Crypto), Giardia, and E-Coli. Crypto was detected in two (2) of the 24 source water samples collected. Crypto was **NOT** detected in any of the finished water samples.

Ingestion of Crypto may cause cryptosporidiosis, and abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

How do I read this Chart?

It's easy! GCDC-WWS water is tested to assure that it is safe and healthy. These Tables are based on tests conducted by **GCDC-WWS**, EGLE, and privately contracted laboratories within the last five (5) calendar years. Many tests are conducted throughout the year, however, only tests that show the presence of a contaminant are shown here. The table on this page is a key to the terms used in the following table. Sources of Contaminants show where this substance usually originates.

Key to Detected Contaminants Table

Symbol	Non-Abbreviated Symbol or Term	Definition/Explanation
AL	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
HAA5	Halo acetic Acids	HAA5 is the total of bromoacetic, chloroacetic, dibromo acetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
LRAA	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
MCL	Maximum Contaminant Level	The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health. *MCLG's allows for a margin of safety.*
MRDL	Maximum Residual Disinfectant Level	The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRLDG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	not applicable	Does not apply.
ND	Not Detected	Result is not detectable at or below the laboratory detection level.
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
pCi/L	Picocuries Per Liter	A measure of radioactivity.
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ug/L	Micrograms per liter	A microgram = 1/1000 milligrams. 1 microgram per liter is equal to 1 part per billion (ppb).
ppm	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of analytical results for all samples taken during the previous twelve months.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
>	Greater than	Mathematical symbol that denotes a value "greater than" another value.
	90th Percentile Value	The concentration of lead or copper in tap water exceeded by 10 percent of the sites sampled during a monitoring period.

2023 Regulated Detected Contaminant Tables

Inorganic Chemicals - Monitoring at the Plant Finished Water Tap

Regulated Contaminant	Test Date	Unit	MCLG or MRDLG	MCL, TT, or MRDL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Fluoride	Daily	ppm	4	4	0.88	0.33 - 0.88	no	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Barium	2023	ppm	2	2	0.014	0.012-0.014	no	Erosion of natural deposits; discharge of metal refineries; discharge of drilling wastes.
Arsenic	2023	ppb	0	10	0.54	ND-0.54	no	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Nitrate (as Nitrogen)	2023	ppm	10	10	0.5	ND-0.5	no	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Disinfection By-Products - Monitoring in Distribution System, Stage 2 Disinfection By-Products

Regulated Contaminant	Test Date	Unit	MCLG or MRDLG	MCL, TT, or MRDL	Highest LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2023	ppb	n/a	80	48.2	12.3-69.2	no	By-product of drinking water disinfection
Haloacetic Acids (HAA5)	2023	ppb	n/a	60	13	0-11.0	no	By-product of drinking water disinfection

Disinfectant Residuals - Monitoring in Distribution System

Regulated Contaminant	Test Date	Unit	MCLG or MRDLG	MCL, TT, or MRDL	Highest RAA	Quarterly Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Chlorine Residual	2023	ppm	4	4	0.73	0.2 - 1.50	no	Water additive used to control microbes

2023 Turbidity - Monitored every 4 hours at Plant Finished Water

Highest Single Measurement Cannot exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)	Violation yes/no	Major Sources in Drinking Water
0.09	**100%**	no	Soil Runoff

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

2023 Lead and Copper Monitoring at Customer Tap

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Action Level AL	90th Percentile Value*	Range of Detection	Number Samples Over AL	Violation yes/no	Major Sources in Drinking Water
Lead (June - September)	2023	ppb	0	15	0	0-2	0	no	Lead service lines; corrosion of household plumbing including fitting and fixtures; Erosion of natural deposits.
Copper (June -September)	2023	ppm	1.3	1.3	0	0-.1	0	no	Corrosion of household plumbing systems; Erosion of natural deposits.

*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL, additional requirements must be met.

Regulated Contaminant	Treatment Technique	Typical Source of Contaminant
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each month and because the level was low, there is no TOC removal requirement.	Erosion of natural deposits

Radionuclides 2019							
Regulated Contaminant	Test Date	Unit	MCLG or MRDLG	Allowed Level	Level Detected	Violation yes/no	Major Sources in Drinking Water
Combined Radium 226 and 228	2/13/19	pCi/L	0	5	1.1 ± 0.50	no	Erosion of natural deposits
Gross Alpha	2/13/19	pCi/L	0	15	2.0 ± 1.0	no	Erosion of natural deposits

2023 Unregulated Detected Contaminant

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	11.0	Erosion of natural deposits
Magnesium	n/a	n/a	8.1	Erosion of natural deposits
Sulfate	n/a	n/a	25	Runoff/leaching from natural deposits

Per- and Polyfluoroalkyl Substances (PFAS):

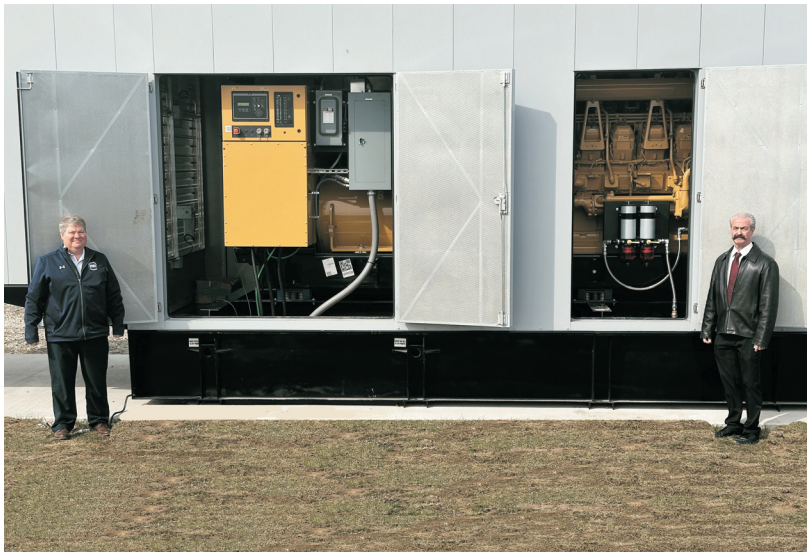
Per- and polyfluoroalkyl substances (PFAS), sometimes called PFCs, are a group of chemicals that are resistant to heat, water, and oil. PFAS have been classified by the EPA as an emerging contaminant on the national landscape. For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, fire-fighting foams, and metal plating. They are still used today. PFAS have been found at low levels both in the environment and in blood samples from the general U.S. population. These chemicals are persistent, which means they do not break down in the environment. They also bioaccumulate, meaning the amount builds up over time in the blood and organs. Although our understanding of these emerging contaminants is constantly evolving, elevated levels of PFAS have the potential to cause increased cholesterol, changes in the body's hormones and immune system, decreased fertility, and increased risk of certain cancers. Links to these health effects in humans are supported by epidemiologic studies and by laboratory studies in animal models.

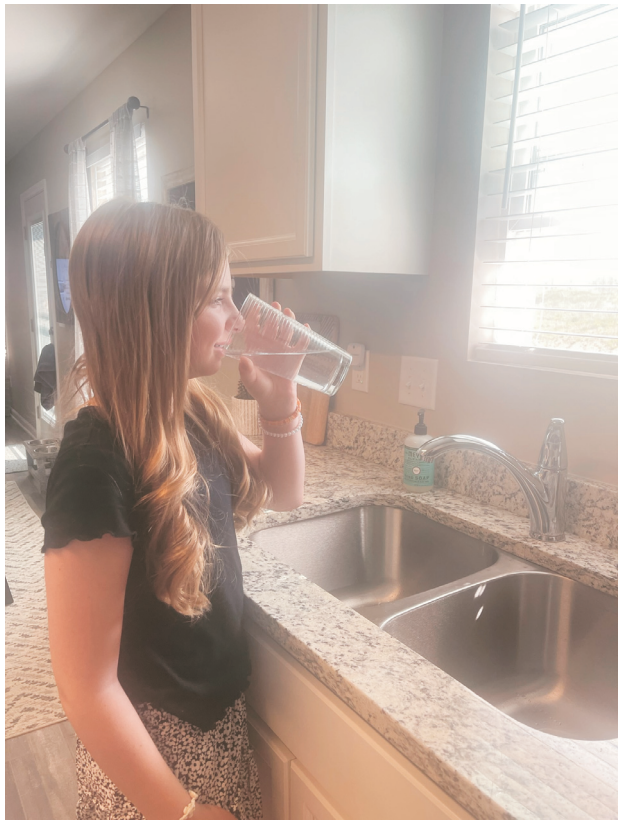
How can I stay updated on the situation?

The State of Michigan has created a website where you can find information about PFAS contamination and efforts to address it in Michigan. The site will be updated as more information becomes available. The website address is: http://michigan.gov/pfasresponse.
PFAS testing of treated water was conducted by GCDC-WWS in April 2022 and the results for all samples were below the detection limit (ND).

2023 EGLE Act 399 Construction Permit Notification

The GCDC-WWS filed for an ACT 399 construction permit in 2022 to install chlorination equipment at our Center South Pumping Station. Installation began in 2023 prior to a final Act 399 construction permit being obtained from EGLE. However, the chlorination equipment was not placed into service until a final Act 399 construction permit was obtained from EGLE.





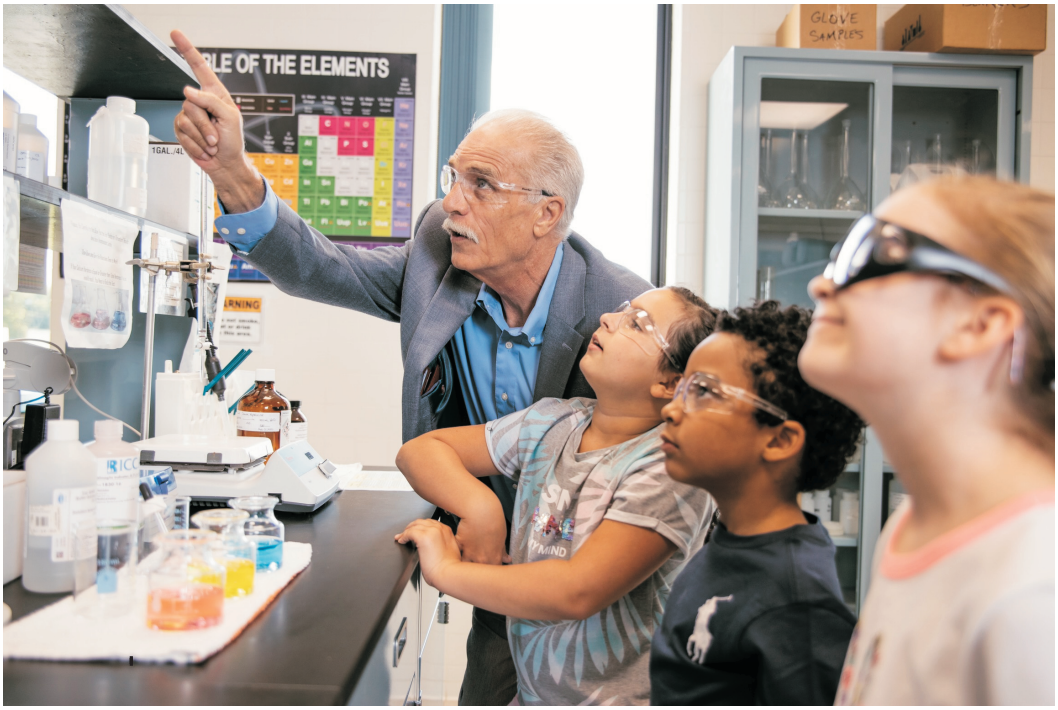
Important Health Information - Lead:
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. GCDC-WWS is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA's Safe Drinking Water Hotline (800) 426-4791 or at *http://www.epa.gov/drink/info/lead*.

Safe drinking water is a shared responsibility. The water that is delivered to our community does not contain lead. However, lead can leach into drinking water through home plumbing fixtures, and in some cases, customer service lines. Corrosion control reduces the risk of lead and copper from leaching into your water. Orthophosphates are added during the treatment process as a corrosion control method to create a protective coating in service pipes throughout the system, including in your home or business. GCDC-WWS performs required lead and copper sampling and testing in our community. Water consumers also have responsibility to maintain the plumbing in their homes and businesses, and can take steps to limit their exposure to lead. GCDC-WWS provides operation and maintenance services for several communities within Genesee County, which include 19,013 water service connections, none of which are lead.

Opportunities for Public Participation:
We encourage public interest and participation in our community's decisions affecting drinking water. Regular Advisory Board Meetings occur on the third Wednesday of every month, at G-4610 Beecher Road, Flint, Michigan at 9:00a.m. The public is welcome.

National Primary Drinking Water Regulation Compliance:
GCDC-WWS staff are happy to answer any questions and provide more information about GCDC-WWS's services and our water quality. Please call Dan Lince or Adam Clark at (810) 732-7870. You may also visit our website *http://www.gcdcwws.com* For more information about safe drinking water, visit U.S. EPA at http://www.epa.gov/safewater.



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